

Weekly Influenza Surveillance Report

Maryland Department of Health and Mental Hygiene | Infectious Disease and Environmental Health Administration
Office of Infectious Disease Epidemiology and Outbreak Response

SYNOPSIS

Influenza activity remained **“widespread”** in Maryland during the week of February 6 to February 12, 2011. Cases of influenza were reported throughout Maryland. The number and proportion of visits to sentinel providers and emergency departments for influenza-like illness remained elevated similar to the week of January 30 to February 5, with a slight upward tick in indicators. Twelve outbreaks of respiratory disease were also reported. The proportion of Maryland residents reporting ILI through MRITS increased slightly. The State Laboratories Administration also reported PCR-positive results on samples submitted for influenza testing during week 6.

PLEASE NOTE: Influenza is not a reportable condition in Maryland. As a result, we rely on select sources of information such as some (sentinel) clinical labs and physician offices, and the public. Because these sources cannot report all cases in the state, the counts contained in this summary do not represent the true number of cases of influenza in Maryland. They do provide valuable information about trends. All data are preliminary and subject to change.

INFLUENZA-LIKE ILLNESS SURVEILLANCE (ILINet)

During week 6, 11 sentinel providers reported 316 (4.2%) of 7,513 visits to their practices were for ILI. This is below the state baseline of 5.6%.

This same week last season, when influenza activity peaked late in October of 2009 and was on the decline by December, the proportion of visits for ILI was 3.4%.

For more information on the US Outpatient Influenza-like Illness Reporting Network (ILINet), please visit our website: <http://dhmh.maryland.gov/fluwatch> and click on “ILINet Sentinel Providers”.

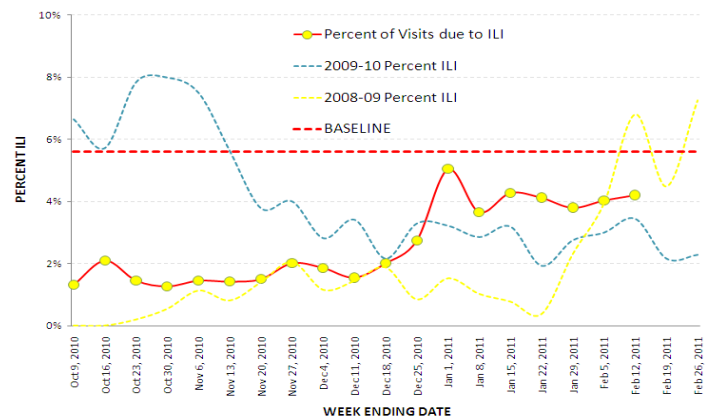


Figure 1. Proportion of visits for ILI to ILINet sentinel providers, 2010-11 influenza season

CLINICAL LAB REPORTS OF RAPID FLU TESTING

During week 6, 21 sentinel clinical laboratories reported 664 (20.8%) of 3,197 rapid influenza tests as positive: 590 were positive for type A, and 74 were positive for type B influenza. This proportion of positive tests was higher than the proportion reported at this time last season, which was 3%, but similar to the proportion observed during the peak of activity in 2009.

While not as accurate as PCR tests, rapid influenza tests become more accurate as the flu season progresses and influenza is more prevalent in the community, giving insight into the activity of influenza.

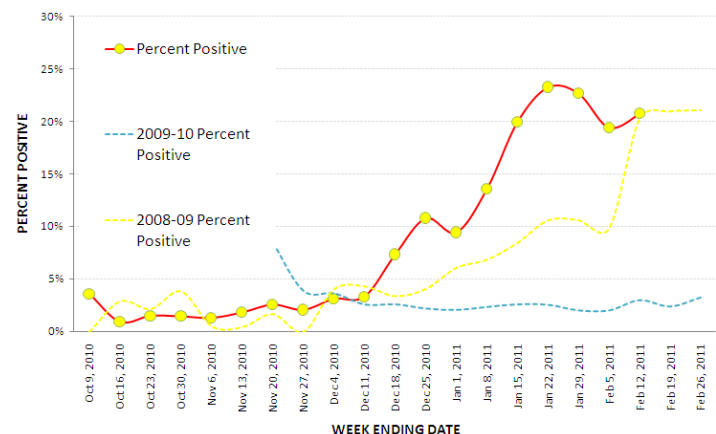


Figure 2. Proportion of rapid tests reported by sentinel clinical laboratories, 2010-11 influenza season

Type of Positives	Number (%)
Type A	2,819 (88%)
Type B	377 (12%)
Positive, but not typed	0
Total Positive	3,196 (100%)

Table 1. Number of positive rapid influenza tests, by type, reported by collaborating clinical laboratories 2010-11 season to date

GET VACCINATED!

Go to

<http://dhmh.maryland.gov/swineflu/getVaccinated.html>
and find your local health department for more information.

MARYLAND RESIDENT INFLUENZA TRACKING SURVEY (MRITS)

During week 6, 615 (40.5% of total) participants in the MRITS responded to the weekly survey. Of those who responded, 20 (3.3%) reported flu-like illness. This proportion is higher than this same week last season, when 0.9% of respondents reported flu-like illness.

We are always looking for more participants for the MRITS. If you know someone who would like to participate, please direct them to our website:

<http://dhmh.maryland.gov/flusurvey>.

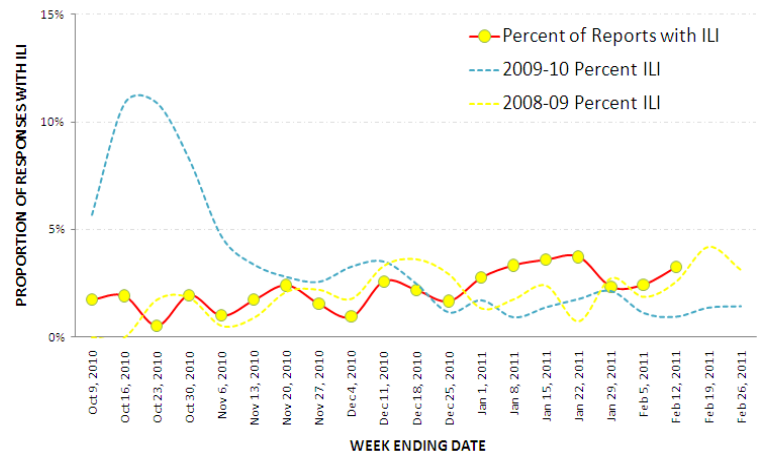


Figure 3. Proportion reporting ILI to the MRITS by week, 2010-11 influenza season

DHMH LABORATORIES ADMINISTRATION REPORTS

During week 6, the DHMH Laboratories Administration performed a total of 135 PCR tests for influenza. Ninety-two (92) were positive for influenza: 52 were type A (H1N1), 39 were type A (H3), and 1 was type B.

The table to the right shows the breakdown of positive tests by influenza strain for the 2010-11 influenza season to date.

More information on the valuable work done by the DHMH Laboratories Administration is available at <http://dhmh.maryland.gov/labs>.

Influenza Type	No. (%)
Type A	
H1	355 (48.6%)
H3	356 (48.8%)
Unsubtyped	0 (0%)
Type B	19 (2.6%)
TOTAL	730 (100%)

Table 1. Number of respiratory samples positive for influenza by PCR reported by the DHMH Labs Administration, 2010-11 influenza season

EIP INFLUENZA HOSPITALIZATION SURVEILLANCE

During week 6, 56 hospitalizations associated with influenza were reported to the Emerging Infections Program (EIP) by 40 hospitals. To date, there have been 665 hospitalizations.

To be a confirmed hospitalization associated with influenza, the person must be hospitalized and have a positive influenza test of any kind (rapid test, PCR, culture).

During the same week last season, 8 hospitalizations were reported, with a total of 1,401 at that point in the season. For the entire season (2009-10), 1,458 hospitalizations were reported.

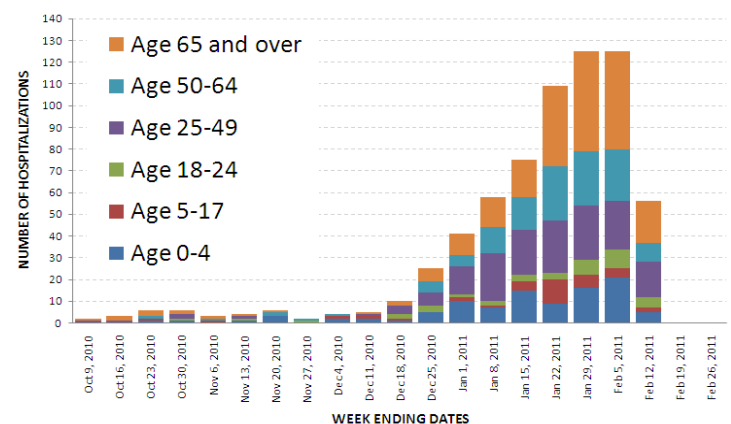


Figure 4. Number of hospitalizations associated with influenza, by age group and week, reported to the Emerging Infections Program, 2010-11 influenza season

DID YOU KNOW?

One of the reasons why vaccines take quite some time to be produced from the moment a new influenza virus is detected is the fact that the viruses for vaccines have to be grown in chicken eggs. That process takes some time. Another process is by growing the viruses for vaccines in cell cultures. Recent studies on the vaccines derived from cell cultures are encouraging, showing that cell-derived vaccines may give similar levels of immunity. More information on this is available at <http://goo.gl/ph6t8>.

REPORTS OF OUTBREAKS IN INSTITUTIONAL SETTINGS

During week 6, twelve outbreaks of respiratory illness were reported. Six were confirmed as influenza outbreaks. Three were outbreaks of pneumonia, and three were outbreaks of ILI. This brings the season's total to 44 reported outbreaks. Last season, a total of 208 outbreaks of respiratory illness were reported. Of those, 33 were confirmed as influenza outbreaks.

An outbreak of ILI is re-classified as an outbreak of influenza if there is laboratory evidence of influenza virus present in the samples collected from case-patients during the outbreak.

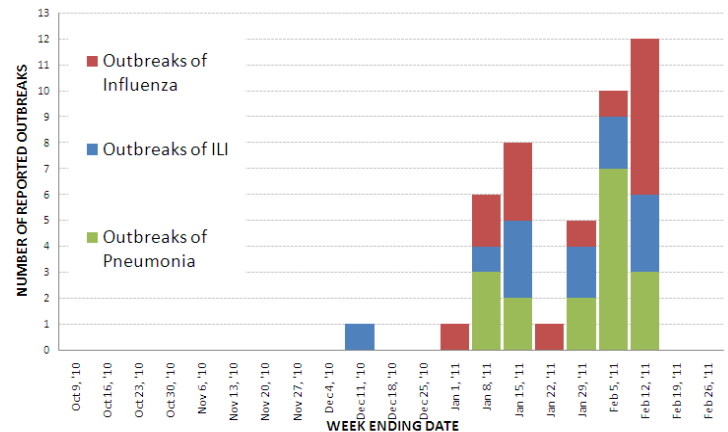


Figure 5. Number of outbreaks reported by week and by type during the 2010-11 influenza season.

EMERGENCY DEPARTMENT ILI REPORTS (ESSENCE)

During week 6, a total of 43,270 visits to emergency departments for all reasons were reported to the Office of Preparedness and Response through the ESSENCE system. Of those visits, 1,366 (3.2%) were for influenza-like illness. This proportion is higher than those observed over the prior two influenza seasons and slightly higher than the previous week.

For more information on ESSENCE, please visit the Office of Preparedness and Response's web site at: <http://bioterrorism.dhmd.state.md.us>.

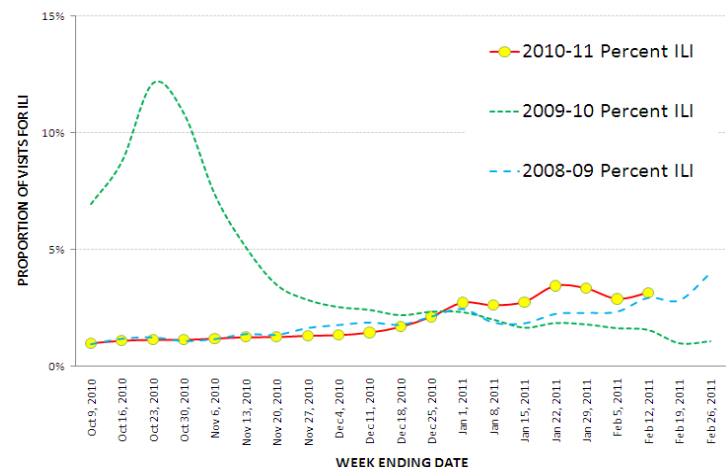


Figure 6. Number and proportion of visits to emergency departments for ILI by week reported through ESSENCE, 2010-11 influenza season.

GOOGLE FLU TRENDS

According to Google, influenza activity in Maryland is currently **"MODERATE"**. What does this mean? From the [Google Flu Trends Website](http://www.google.com/flutrends/): "We have found a close relationship between how many people search for flu-related topics and how many people actually have flu symptoms. Of course, not every person who searches for 'flu' is actually sick, but a pattern emerges when all the flu-related search queries are added together. We compared our query counts with traditional flu surveillance systems and found that many search queries tend to be popular exactly when flu season is happening. By counting how often we see these search queries, we can estimate how much flu is circulating in different countries and regions around the world."

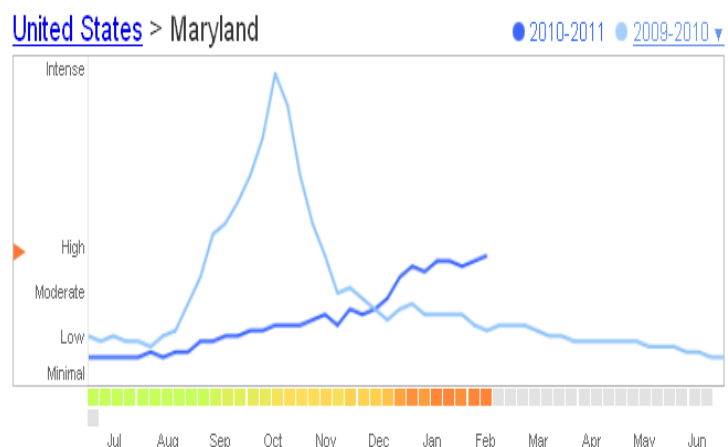


Figure 7 – According to Google Flu Trends, influenza activity in Maryland is currently "moderate". At this time last year, during the 2009 H1N1 influenza pandemic, influenza activity in Maryland was "low" to "moderate".

OFFICE OF INFECTIOUS DISEASE
EPIDEMIOLOGY AND OUTBREAK
RESPONSE

201 W. PRESTON ST.

BALTIMORE, MD 21201

PHONE: 401-767-6700

FAX: 410-669-4215

VISIT US ON THE WEB:

<http://dhmh.maryland.gov>

**ALL THE INFORMATION INCLUDED
IN THIS REPORT IS PROVISIONAL
AND SUBJECT TO CHANGE AS MORE
DATA ARE RECEIVED FROM
SURVEILLANCE SOURCES.**

**THE INFORMATION INCLUDED IN
THIS REPORT IS NOT INTENDED TO
BE USED FOR INDIVIDUAL
DIAGNOSES.**

ONLINE VERSION OF THIS REPORT
AND PAST SEASONS' REPORTS MAY
BE DOWNLOADED AT:

<http://dhmh.maryland.gov/fluwatch>

FLU SURVEILLANCE IN NEIGHBORING
STATES:

DELAWARE-

<HTTP://BIT.LY/9Zkp3>

DC-

<http://tinyurl.com/yj7br9e>

PENNSYLVANIA-

<http://tinyurl.com/37323xn>

VIRGINIA-

<http://tinyurl.com/kmnaeu>

WEST VIRGINIA-

<http://tinyurl.com/39m2kon>

CDC NATIONAL INFLUENZA SURVEILLANCE REPORT

(<http://cdc.gov/flu/weekly>)

During week 6 (February 6-12, 2011), influenza activity in the United States remained elevated.

-Of the 9,448 specimens tested by U.S. World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories and reported to CDC/Influenza Division, 3,306 (35.0%) were positive for influenza.

-The proportion of deaths attributed to pneumonia and influenza (P&I) was above the epidemic threshold.

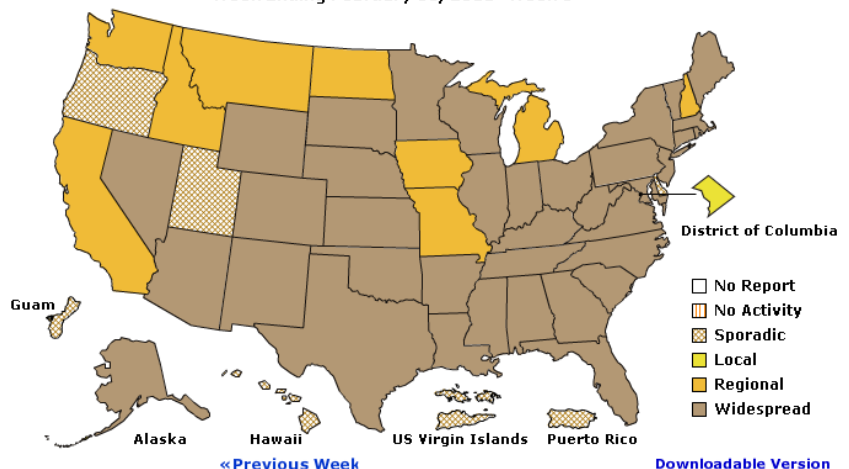
-Five influenza-associated pediatric deaths were reported. Three of these deaths were associated with 2009 influenza A (H1N1) virus, one was associated with an influenza A virus for which the subtype was not determined, and one was associated with an influenza B virus.

-The proportion of outpatient visits for influenza-like illness (ILI) was 4.5%, which is above the national baseline of 2.5%. All 10 regions reported ILI at or above region-specific baseline levels. Twenty states experienced high ILI activity; nine states experienced moderate ILI activity; New York City and five states experienced low ILI activity, and the District of Columbia and 16 states experienced minimal ILI activity.

-The geographic spread of influenza in 37 states was reported as widespread; 10 states reported regional influenza activity; the District of Columbia reported local activity; Puerto Rico, the U.S. Virgin Islands, and three states reported sporadic influenza activity, and Guam reported no influenza activity.

A Weekly Influenza Surveillance Report Prepared by the Influenza Division
Weekly Influenza Activity Estimates Reported by State and Territorial Epidemiologists*

Week Ending February 05, 2011- Week 5



*This map indicates geographic spread and does not measure the severity of influenza activity.